5 é / Descriptions

SOT23-3 .> / / x P 3 « | • ’ož

6 CHANNEL MOSFET in a SOT23 -3 Plastic Package.

¤ ª / Features

V_{DS}=-60V; I_D=-3A

$R_{DS(on)1}$@-10V 0 100m ¡ (Type.83m ¡)

$R_{DS(on)2}$@-4.5V 0 130m ¡ (Type.100m ¡)

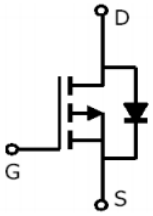
—)í D }ož HF Product.

Ð ÷ / Applications

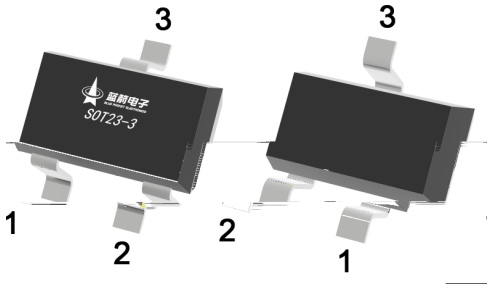
6 = 3 • ¿ ú • ¼ož

PWM application & Load switch.

Ã W] Ô · / Equivalent Circuit



• Û - æ / Pinning



PIN1 y G PIN 2 y S PIN 3 y D

, M V / Marking

• - ~ ª ¢ož

See Marking Instructions.

@ *f* Parameter	… Z Symbol	*f* › Rating	% y Unit
Drain–Source Voltage	V_{DSS}	-60	V
Gate–Body Leakage Voltage	V_{GSS}	±20	V
Drain Current – Continuous	I_D	-3	A
Pulsed Drain Current	I_{DM}	-16	A
Power Dissipation	P_D	1.4	W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 150	
Maximum Junction-to-Ambient	R ©JA	89	/W

@ *f* Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0V I_D=-250 A	-60	-65		V
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=-250 A	-1	-1.6	-2.5	V
Static Drain–Source On–Resistance	$R_{DS(on)}$	V_{GS}=-10V I_D=-2A		83	100	m
		V_{GS}=-4.5V I_D=-1A		100	130	m
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-60V V_{GS}=0V			-1.0	A
Gate-Body leakage current	I_{GSS}	V_{GS}=±20V V_{DS}=0V			±100	nA
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=-1A T_J=25			-1.2	V
Gate resistance	R_g	f=1MHz		6.5		

Input CapaInput Capa558 0 0 10.5 55.98 304.348 39803 Tm 56.18 137.06 4-8863 T(C10.4958 0 0 10.5 250.08 7. [(3

Ô ? d • Ž ¢ / Electrical Characteristic Curve

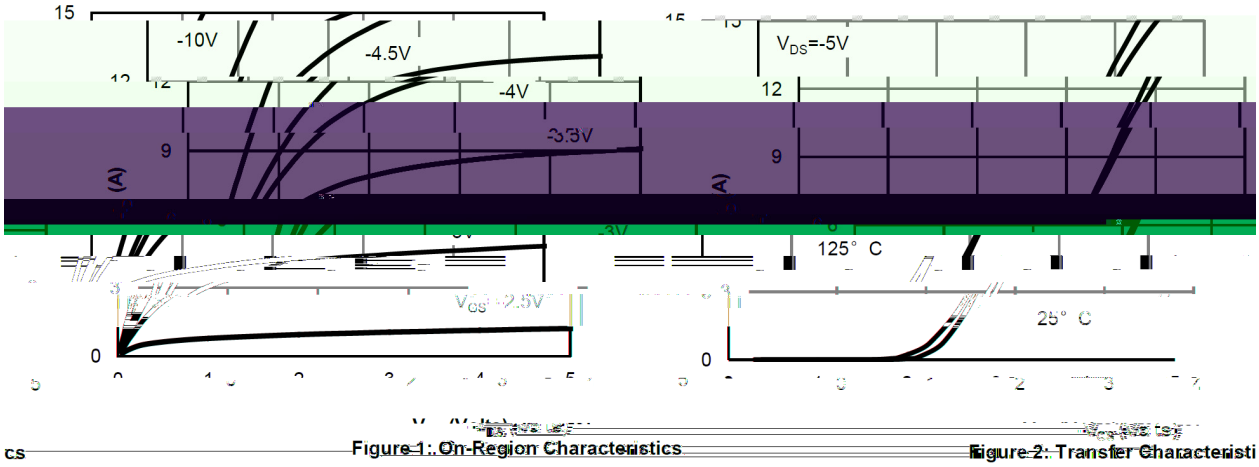
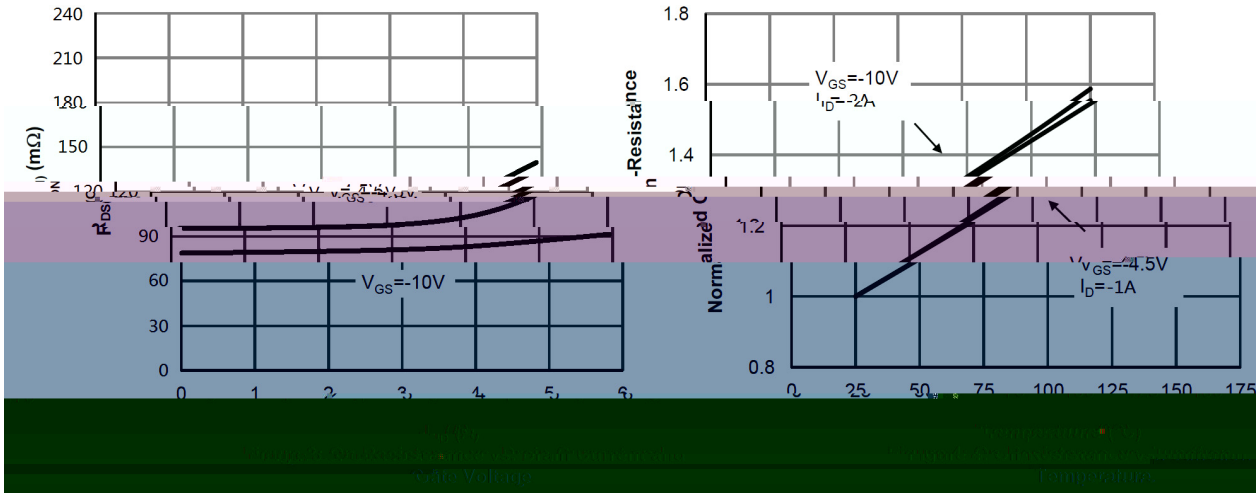


Figure 1: On-Region Characteristics

Figure 2: Transfer Characteristi



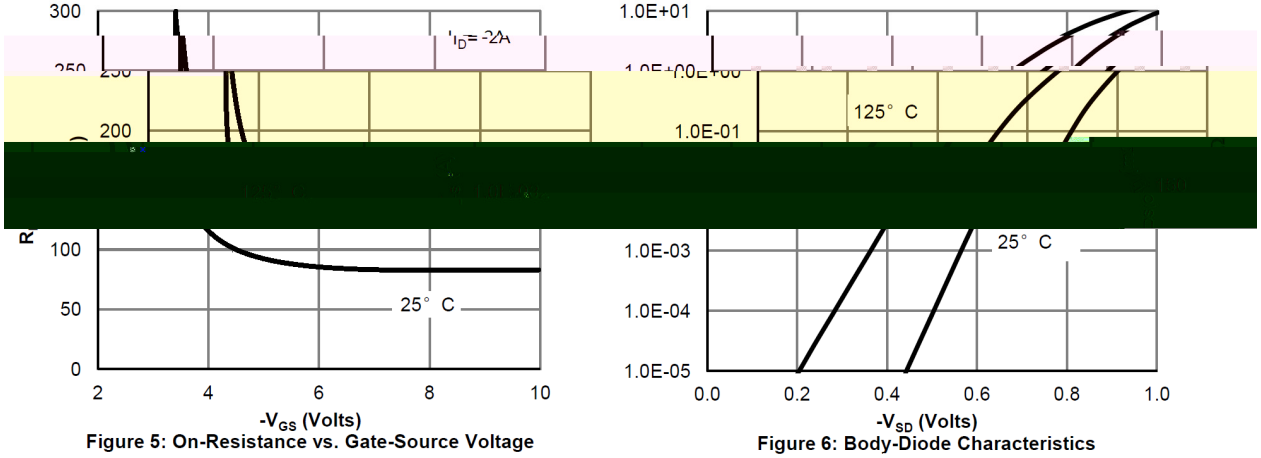
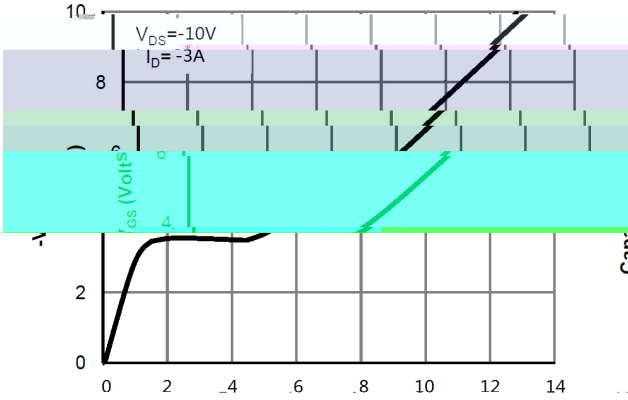


Figure 5: On-Resistance vs. Gate-Source Voltage

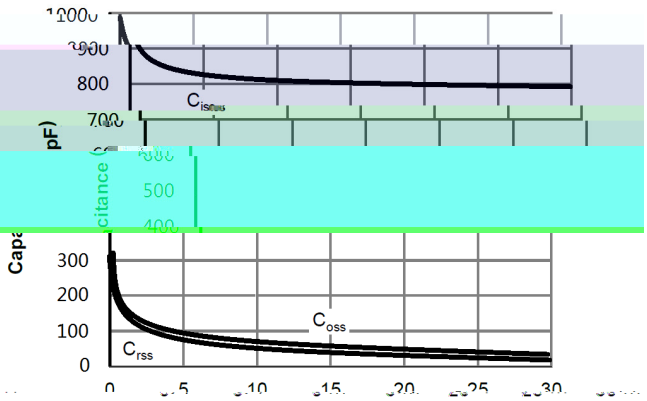
Figure 6: Body-Diode Characteristics

Ô ? d • Ž ¢ / Electrical Characteristic Curve



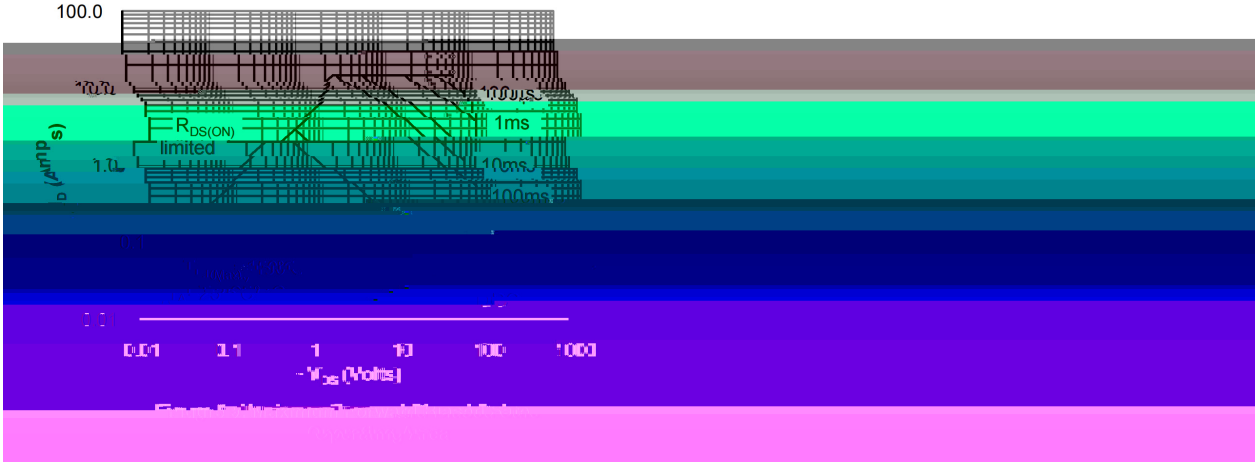
Q_g (nC)

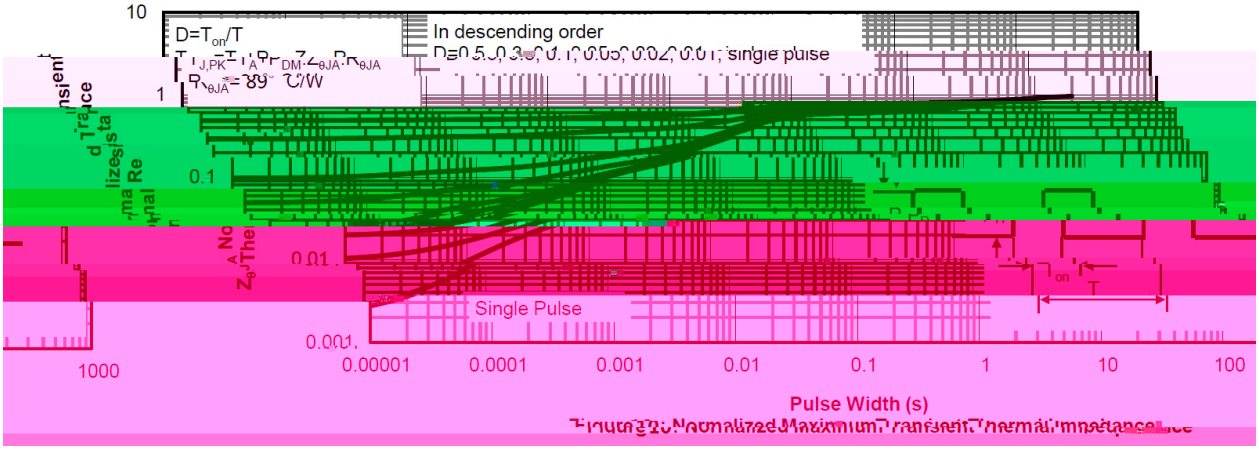
Figure 7: Gate-Charge Characteristics



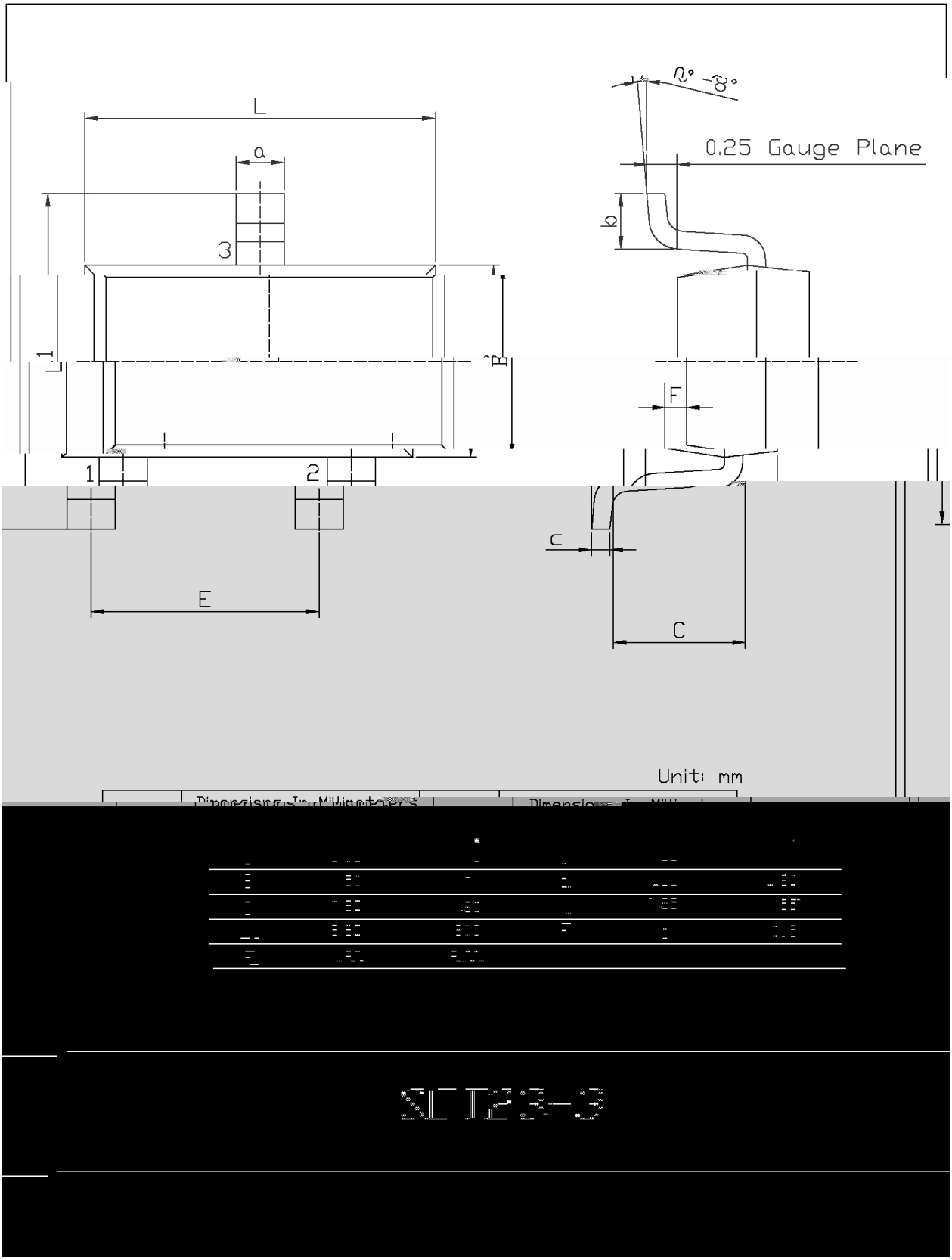
$-V_{DS}$ (Volts)

Figure 8: Capacitance Characteristics





Ø ¤ =) ¢ / Package Dimensions



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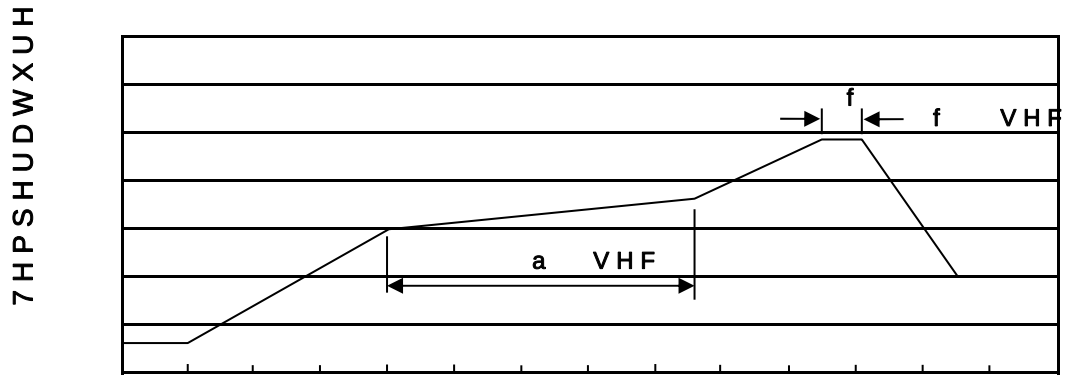
š WD t … • Ž ¢ (x /) / : K S V K X G Z [X K 6 X U L O R K L U X / 8 8 K L R U] 9 U R J K X O T M 6



7 L P H V H F

ª ¢ y

1o• Ä ½ “ † 150 ½180 - k ž • 60 ½90sec;

2o• Q › “ † 245 r5 - k ž • 4 Ò 5 r0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

1.Preheating:150~180 - , Time:60~90sec.

2.Peak Temp.:245 r5 - , Duration:5 r0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“ † y 260 r5 - ž • y 10 r1 sec. Temp.:260±5 Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ˜ E	Units ;>û ¦H					Dimension ;>û p . (unit Æmm³)		
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box×	Outer Box1ç
SOT23-3	3,000	10	30,000	4	120,000	7 s ×8	210×205×205	445×435×230

„ Ð y ƒ / Notices